

### **REMARKS**

Claims 1 -15 are pending in the present application. Claims 1, 6, and 10 have been amended. As a result of an amendment, claim 12 has been canceled. No new matter has been added. No claims have been added.

Through this present response, Applicants traverse all rejections and request further examination of the application.

### **REJECTIONS UNDER SECTION 112**

The Office has rejected claims 1-15 for allegedly not complying with the written description requirement. As an example, but not by way of limitation, of support for the term, “partially”, the Office is directed to the Background of the Invention in the portion discussion removal efficiency. The Applicants request reconsideration and withdrawal of the rejection to claim 1, and subsequently claims 2-15, under Section 112.

### **REJECTIONS UNDER SECTION 103**

The Office has rejected claims 1-15 under Section 103 as allegedly being obvious over Masuda (previously cited) in view of Schiffner (previously cited) or Makin (previously cited). In the alternative, the Office has rejected claims 1-15 under § 103 as allegedly being unpatentable over Sobacchi et al. in view of Makin.

#### **Independent claim 1**

##### **Masuda Reference Rejections**

Claim 1 has been amended to include the recitation of:

*controlling the rate of flow of the water droplets or the water film so that the ratio of the flow of spray of water droplets or water film to the exhaust gas flow is about 0.2 to about 2 milliliters/minute at one standard liter per minute of exhaust gas flow*

The Office relies upon Masuda to allegedly disclose the aspect of using water. As a first matter, as best understood, in the section relied upon by Masuda, Masuda is disclosing conditions in the reaction chamber, not the exhaust gas stream. For example, Masuda discloses “the water film formed on the reactor wall.” This is clearly water within the reactor

itself and not the exhaust gas stream, as recited in claim 1. Further, the water of Masuda is formed from the reaction products and not “*input[]*”, as now recited in claim 1. Additionally, because the water of Masuda in the reactor is “formed” as the result of the reaction, it would not be *controlled*, as recited in claim 1. Masuda provides no disclosure on how the water film that is formed may be *controlled*, if at all.

Because Masuda fails to at least disclose the recitation as discussed above, it follows that the combination of Masuda in view of Schiffner or Makin fail to render claim 1 obvious. For at least these reasons, the Applicants request reconsideration and withdrawal of the rejection to claim 1 under Section 103.

### **Sobacchi Reference Rejections**

In the alternative, the Office relies upon Sobacchi. The Office alleges that claim limitations change the effective filing date of the to the date of the PCT application (March 24, 2003) rather than the filing date of the provisional application, 60/367,231. Without agreeing to the Office’s findings, without disclaimer or prejudice, independent claims 1, 6, and 10 have been amended to remove the limitations that allegedly change the effective priority date. It should be noted that any and all equivalents are hereby maintained and not disclaimed. Thus, at least as amended, these claims have priority to the filing date of the provisional application and Sobacchi has been removed as a reference. Additionally, because the independent claims have priority back to the filing date of the provisional application, Sobacchi cannot be used as a reference for the dependent claims.

Further, under 35 USC § 103 and MPEP 706.02, the Sobacchi reference is hereby removed as a reference. The authors of the Sobacchi reference are all inventors of the present application. Mr. Sobacchi was inadvertently left out as an inventor of the application and is being added as an inventor through a petition which will be filed shortly.

Thus, all rejections in which Sobacchi has been used as a reference are moot in light of the amendments and the correction of inventorship. Reconsideration and withdrawal of the rejections to all claims in which Sobacchi is used as a reference is respectfully requested.

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**PATENT**

### **CONCLUSION**

By the remarks and the amendments provided herein, the Applicant respectfully submits that the Office Action mailed January 7, 2010 has been traversed and that the application is in condition for allowance. If the Examiner has any concerns regarding the response provided herein, or wishes to discuss the response further, the Examiner is invited to contact the undersigned attorney.

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/Robert A. Madayag/

Robert A. Madayag  
Registration No. 57,355

Woodcock Washburn LLP  
Cira Centre  
2929 Arch Street, 12th Floor  
Philadelphia, PA 19104-2891  
Telephone: (215) 568-3100  
Facsimile: (215) 568-3439